Analytical Differences in the Economics of Geography:

The case of the multinational firm

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*This presentation is based on a paper co-authored with Philip McCann of the University of Reading (UK)

Outline

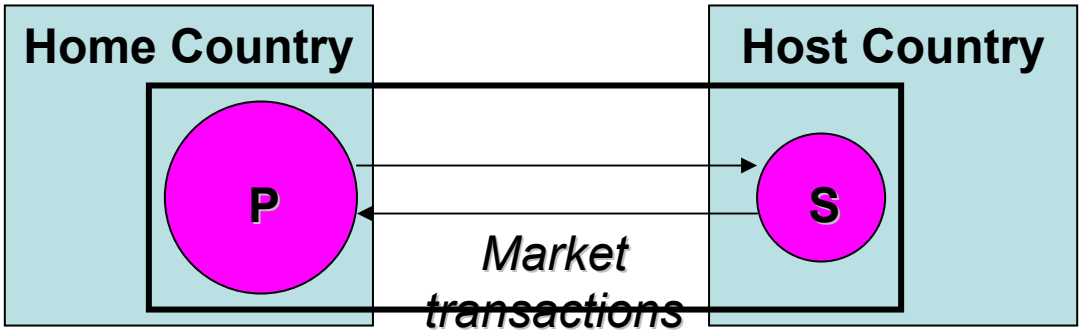
- Approaches to the multinational firm
  - the international business approach
  - geography in international business
  - firms in economic geography
- The MNE knowledge network
  - transfer vs. integration
- Problems with the recent clusters literature
- Implications and conclusions

Need for integration of theoretical approaches

- Traditional approaches are aspatial
  - International business
  - International trade theory
- Economic geography and regional science approaches ignore the issues of firm organization
- Much of the recent work on clusters is problematic

The international business approach (Reading school)

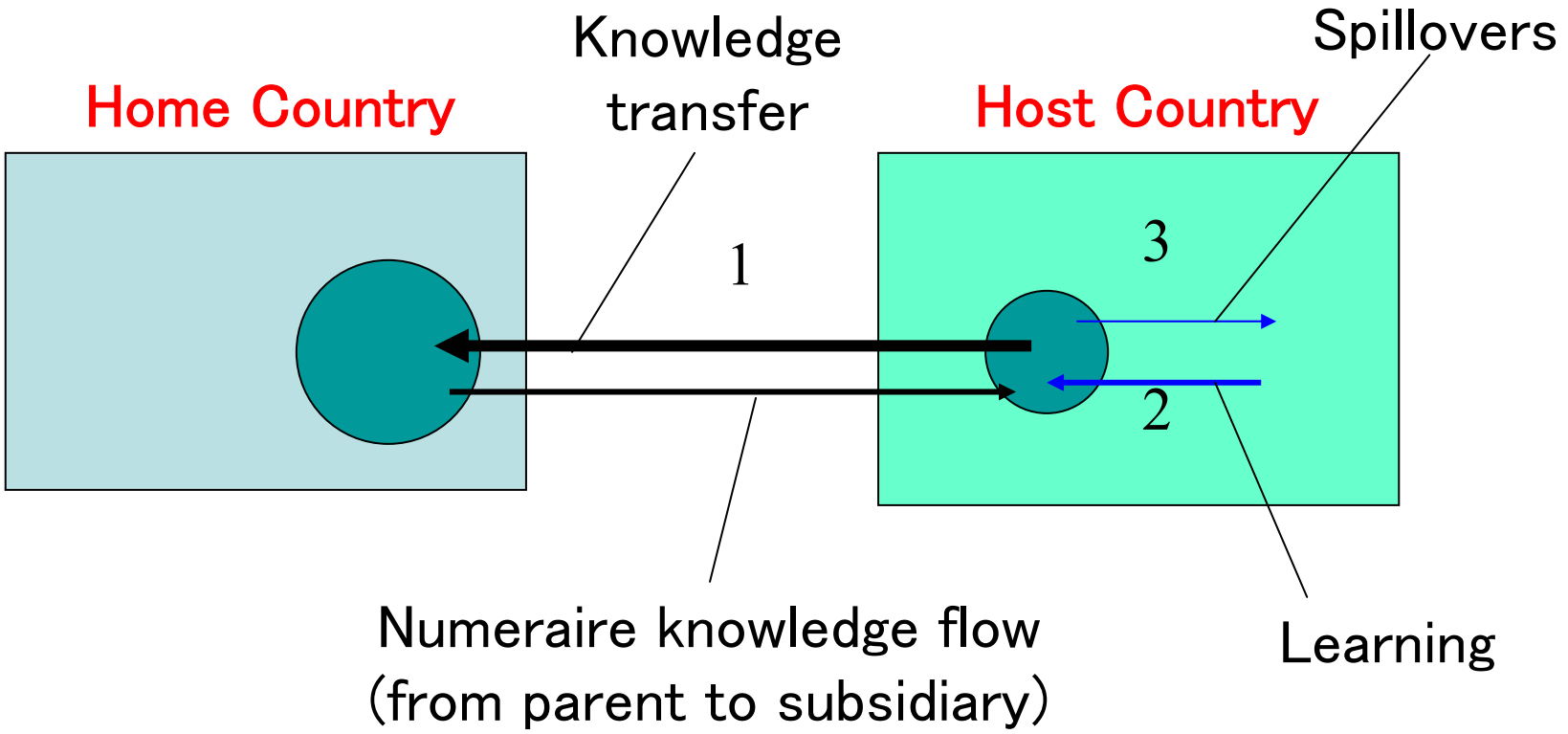
- Multinational activities are driven by:
  - Ownership advantages (industrial economics)
  - Location advantages (economic geography)
  - Internalization advantages



Geography in the international business approach

- The product cycle model
  - Home country activities – Technology frontier
  - Host (foreign) country activities – Standardized and obsolescent activities
- The hierarchical ordering implied by this model is outmoded
  - MNEs can no longer depend on their home country's innovation system to remain competitive
  - Host locations are sources of valuable knowledge
- Variety of subsidiary mandates
  - Home base exploiting vs. home base augmenting

MNE competence-creating knowledge flows*

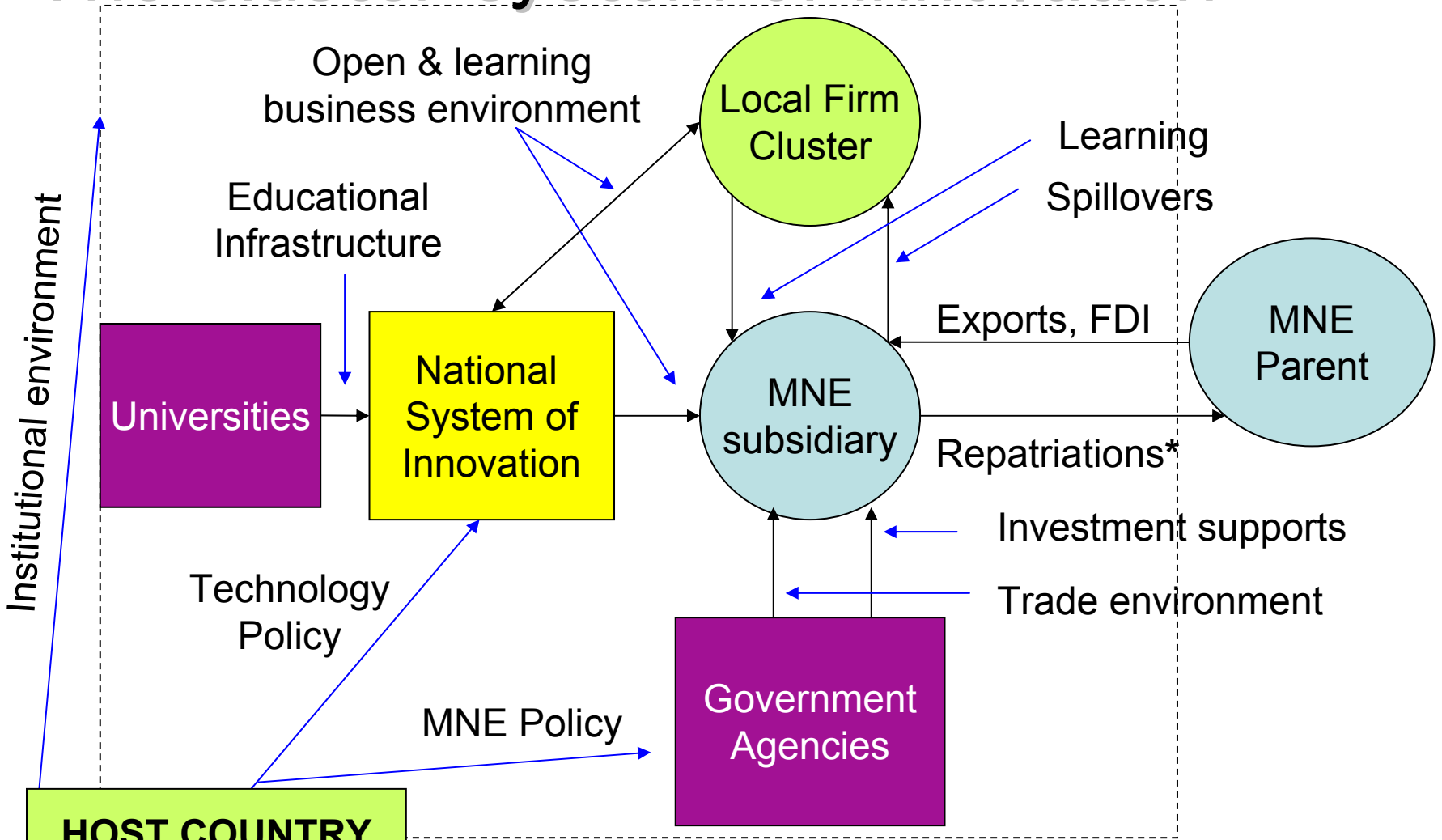


* From Cantwell and Mudambi, 2004

Firms in economic geography & regional science

- Firms are modeled as 'points in space'
- Reconfiguration may be more important than relocation
  - Unchanged location profiles with substantial changes in reallocation of activities within the firm
- Core-periphery model is a variant of the product cycle at the sub-national level
  - Advanced activities' location – resource requirements
  - Standardized activities' location – cost
    - Location optimality based on unitary view of firm organization

The cluster system of innovation



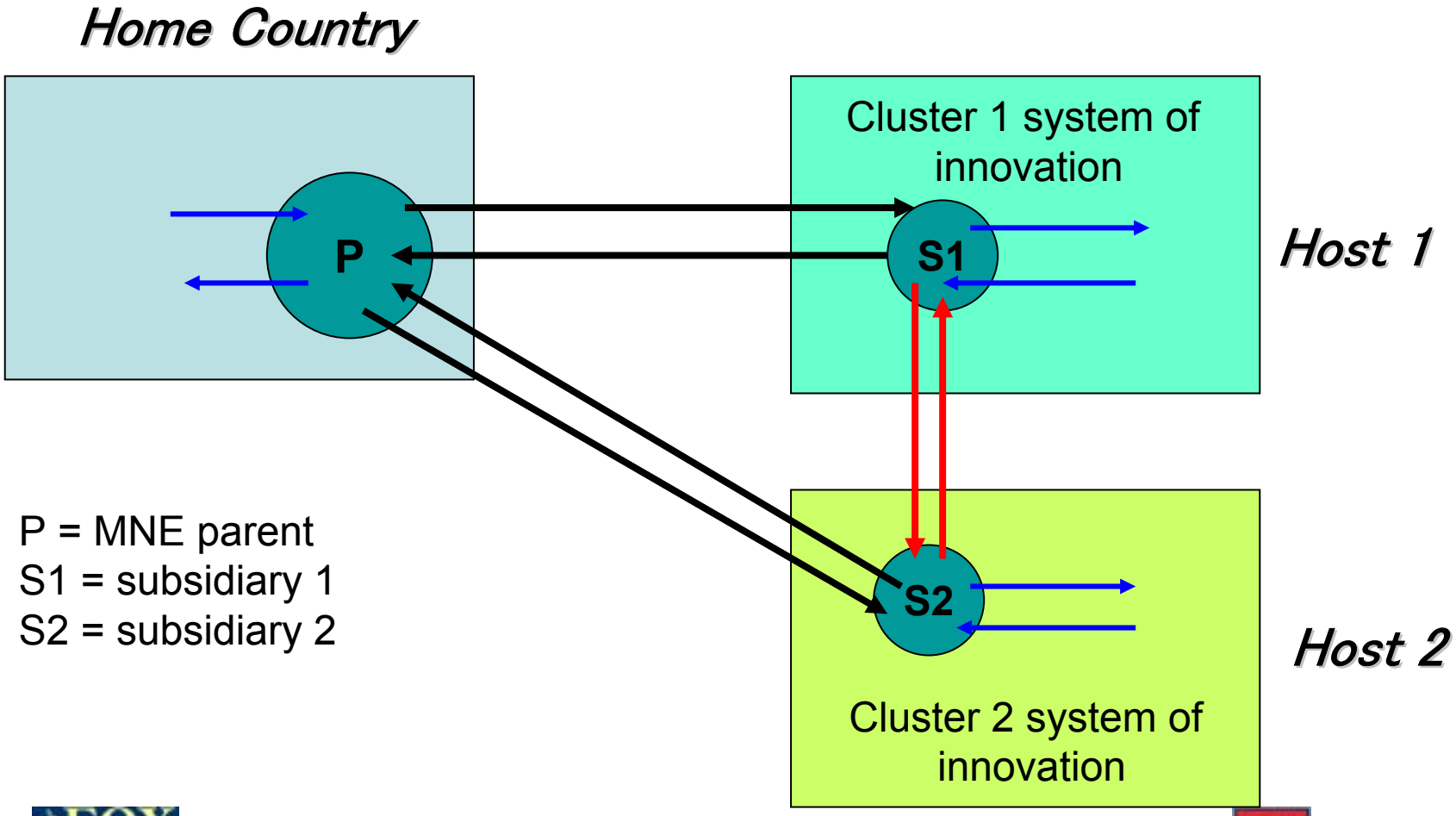
* Repatriations include dividends, royalties, management fees as well as knowledge transfer

McCann and Mudambi
Environment and Planning A, forthcoming

The Uppsala School – 1

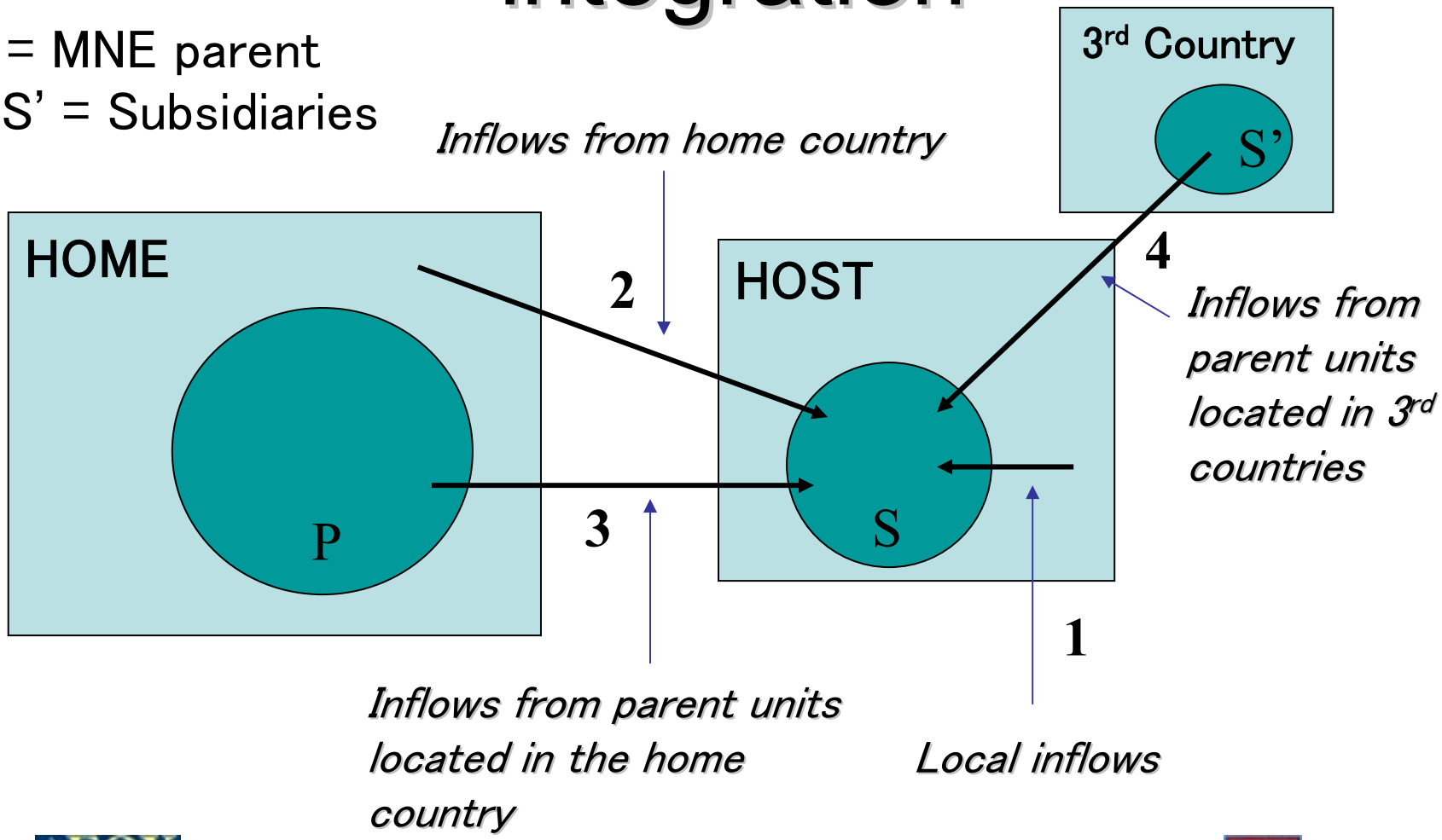
- Dialogue amongst regional scientists and management scholars
- Treats both MNEs and clusters as complex evolving entities
- Gives a central role to knowledge as the basis for both MNEs and clusters

The MNE knowledge network – transfer



The MNE knowledge network – integration

P = MNE parent
S,S' = Subsidiaries



The Uppsala School – 2

- Traditional international business mainly focuses on *knowledge transfer*
- The Uppsala school's primary focus is on *knowledge integration*
- A complete analysis requires incorporating both knowledge transfer and knowledge integration

Recent clusters literature

- Location in clusters is a source of competitive advantage for firms (Porter, 1998)
- However:
  - The geographical dimension over which this advantage operates is not specified
  - Agglomerations can appear even with no interactions amongst firms
    - E.g., market driven agglomeration
  - Cluster location generates both costs and benefits
    - Which firms should locate in clusters?

A typology of clusters

Characteristics	**Pure Agglomeration**	**Industrial Complex**	**Social Network**
Firm Size	Atomistic	Some firms are large	Variable
Inter-firm relations	Fragmented, unstable	Stable trading	Trust, loyalty Joint lobbying, JVs Non-opportunistic
Membership	Open	Closed	Partially open
Access	Rental payments Location necessary	Internal investment Location necessary	History, experience Location necessary but not sufficient
Space outcomes	Rent appreciation	No effect on rents	Partial rental capitalization
Notion of space	Urban	Local, but not urban	Local but not urban
Dynamics	Stochastic	Planned	Mixed
Examples	Competitive urban economy	Steel, chemicals	New industrial areas

Knowledge flows

- Public good vs. private good aspects
- Public good aspects dominate for competitive firms
- Private good aspects dominate for oligopolistic firms
- Large MNEs do not benefit for either pure agglomeration or social network clusters
  - Adverse selection

Implications

- Co-location is most commonly observed in competitive industries
- There is empirical evidence that
  - large MNEs *do not* co-locate their R&D with that of their competitive rivals
  - when they do co-locate, it is designed to minimize spillovers
    - Locating non-core R&D activities, 'listening posts'
    - Industrial complex arrangements – planned processes

Conclusions

- Knowledge is increasingly seen as the basis for MNE existence and growth
- Clusters are a key source of knowledge
  - Geography of MNE knowledge sourcing
- Policy makers view clusters and MNE FDI positively
- An understanding of MNE motivations is crucial in developing appropriate policy